

Work Order ID 83043

April-12-12 1:01:56 PM

\*83043\*

Page 1

Item ID: D3414-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Lug Assembly

Start Date: 12/04/2012 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/04/12 Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D3414	Rev C
-------	-------

100

0.00

\*100\*

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3414-1

Dwg Rev: C

Prog Rev: C

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

\*110\*

QC

Memo

0.00

Quality Control

(40)

Jm / MLJ  
12-4-14

(40)

Jm / MLJ  
12-4-14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 83043

April-12-12 1:01:56 PM

\*83043\*

Page 2

Item ID: D3414-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Lug Assembly

Start Date: 12/04/2012 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC8- Inspect parts - second check

0.00

\*120\*

QC

Memo

0.00

*8.76416*

*count*  
*40*

Quality Control

130

0.00

\*130\*

Brake NC

Memo

0.00

Brake NC

1-Deburr  
2-Form using DT8254 as per Dwg D3414

*SB 126416*

*40*

140

0.00

\*140\*

Large Fab

Memo

0.00

Large Fab

1- Weld using location Jig DT9625 as per Dwg D3414  
A/R S.S. welding rod Batch: *M 114509*

*22*

*12-4-30*

*PTO*

*make CHAMFER → 12.05.01 DL 12.05.01*



W/O: 83043

## WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: ~~3414-041~~ PAR #: \_\_\_\_\_ Fault Category: Large FAB/QC NCR: Yes No DQA: OK Date: 12/05/14  
 Resolution: Re work Disposition: Re work QA: N/C Closed: OK Date: 12/5/15

NCR:

## WORK ORDER NON-CONFORMANCE (NCR)

DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/05/12	#140	Found at AC9 inspection that OH x 16 D3414-3 B76228 were missing the chamfer around the hole. PER R.C. Parts were made. NOTES	12/05/02 Q51042	→ Grinding chamfer around outside Profile + chamfer the hole both side	Cpl 12-05-11 DL 12-05-11	12/05/02	12.05.02 Q51042	12/05/12
		out side (supply) and missed at inspection. Also welders didn't take time to notice or inform anyone.						12/05/12

NOTE: Date &amp; initial all entries

# Work Order ID 83043

April-12-12 1:01:56 PM

\*83043\*

Page 3

Item ID: D3414-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Lug Assembly

Start Date: 12/04/2012 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150

QC9- Inspect visual per QSI004- Fusion Welds

0.00

\*150\*

QC

Memo

0.00

Quality Control

160

QC5- Inspect part completeness to step on W/O

0.00

\*160\*

QC

Memo

0.00

Quality Control

170

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

\*170\*

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

9:00  
420 °F  
9:30

M121134

cat  
+22

22X  
M/L  
12/05/03

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 83043

April-12-12 1:01:56 PM

\*83043\*

Page 4

Item ID: D3414-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Lug Assembly

Start Date: 12/04/2012 Start Qty: 40.00

\*40\*

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 40.00

\*40\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start \*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

180

QC3- Inspect Part Finish

0.00

\*180\*

QC

Memo

0.00

Quality Control

22 0 12/5/12

190

Identify as per dwg & Stock Location

0.00

\*190\*

Packaging

Memo

0.00

Packaging

22 12/5/12

200

QC21- Final Inspection - Work Order Release

0.00

\*200\*

QC

Memo

0.00

Quality Control

12/5/12  
ms 12/05/03



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

April-12-12 1:01:59 PM

Page 1

Work Order ID: 83043

Parent Item: D3414-041

Parent Item Name: Lug Assembly

\*83043\*

\*D3414-041\*

Start Date: 12/04/2012

Required Date: 26/04/2012

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP A05.09.13New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S12GA		Purchased	No			100	sf	119.3300	0.155	6.2			

\*M304S12GA\*

304/316 0.100" Sheet

\*\*

## Location

## Loc Qty

## Loc Code

MAT019

119.33

113062

105.1

113077

14.23

D3414-3

Manufactured

No

140

Each

0.0000

1

\*D3414-3\*

Lug

\*\*

113062

40

12-4-30

12-4-14

76228 x 16

83320 x 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order: 83043
Description: Lug Bracket		Part Number: D3414-1
Inspection Dwg: D3414	Rev: C	Page 1 of 1

### FIRST ARTICLE INSPECTION CHECKLIST

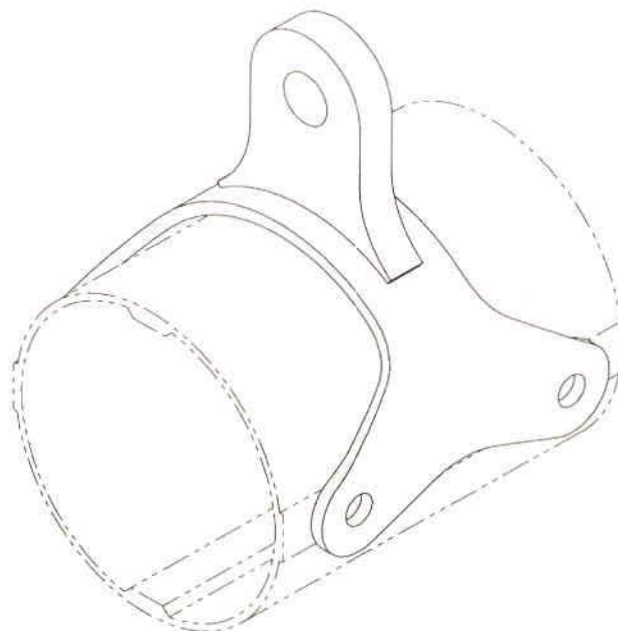
☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.313	+0.006/-0.001	0.315	✓		Vern	HB-02
1.19	+/-0.030	1.187	✓		Vern	HB-02
1.00	+/-0.030	1.005	✓		Vern	HB-02
3.38	+/-0.030	3.363	✓		Vern	HB-02
5.350	+/-0.010	5.349	✓		Vern	HB-02
6.23	+/-0.030	6.216	✓		Vern	HB-02
2.500	+/-0.010	2.502	✓		Vern	HB-02
0.37	+/-0.030	0.370	✓		Vern	HB-02
0.100	+/-0.010	0.102	✓		Vern	HB-02

Measured by: JM	Audited by: S	Prototype Approval:	N/A
Date: 12-4-14	Date: 12/4/16	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.02.28	New Issue P/O D3414-041	KJ/DD	
B	09.05.27	Dimensions updated per Dwg Rev B	KJ	
C	09.10.16	Dwg Rev updated to Rev C	KJ	

ITEM No.	QTY. -041	PART NUMBER	DESCRIPTION
1	X	D3414-041	LUG ASSEMBLY
2	1	D3414-1	LUG BRACKET
3	1	D3414-3	LUG



**D3414-041 LUG ASSEMBLY**

SHOP COPY  
RETURN TO:  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

BY 83043 MJS  
12/04/12

**RELEASED**  
*(Signature)*

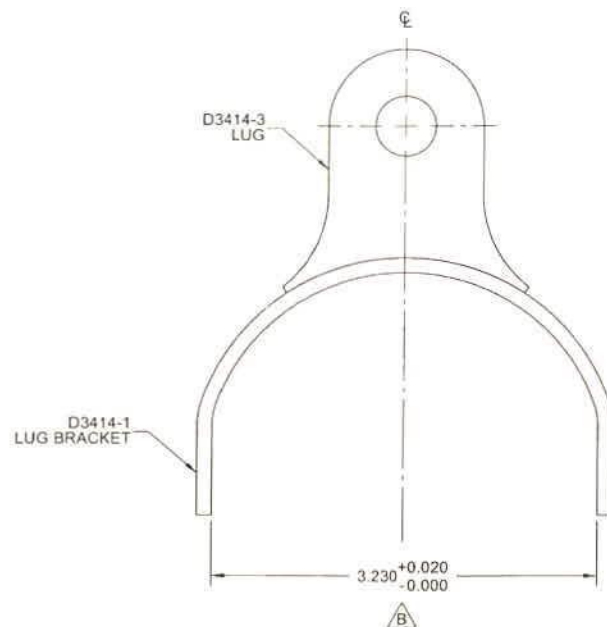
C	BREAK SHARP EDGES FOR .3 NOW 0.030-0.060 WAS 0.010-0.030 (ZN AT-3)	CP	09.06.17
B	DRAWING REDRAWN IN SOLIDWORKS WITH CURRENT STANDARDS AND TRANSFERRED TO "B" SIZE BORDER. FLAT PATTERN FOR .1 INCREASED IN LENGTH TO PREVENT FOULING AT INSTL (SEE PART198). FLAT SPOTS REMOVED FROM .1 (PART NOW "U" SHAPED) FOR EASE OF MANUFACTURE. B7-3 ADDED TOLERANCE TO 3.230 DIM. C2-3 1.12 DIM WAS 1.20.	AJS	08.09.23
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	CP		
CHECKED	<i>(Signature)</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>(Signature)</i>	D3414	SHEET 1 OF 3
APPROVED	<i>(Signature)</i>	TITLE	SCALE
DE APPR.	<i>(Signature)</i>	LUG ASSEMBLY	NTS
DATE	09.06.17	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

**NOTES:**

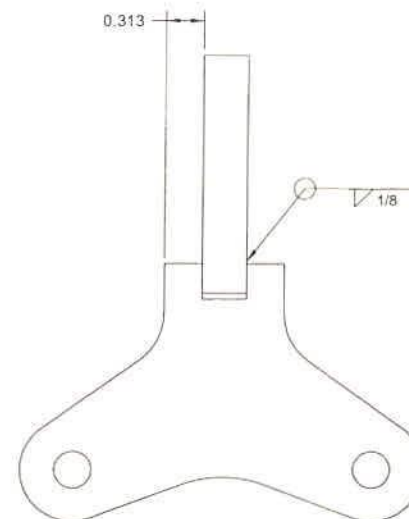
- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3414-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.52 lbs



830413

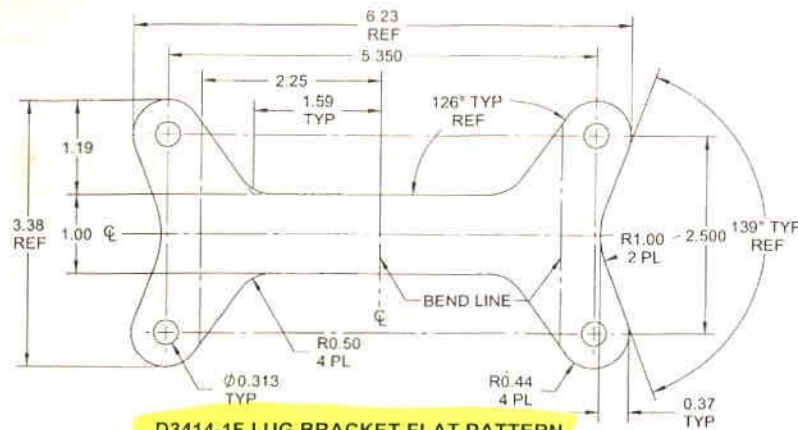


**D3414-041 LUG ASSEMBLY**

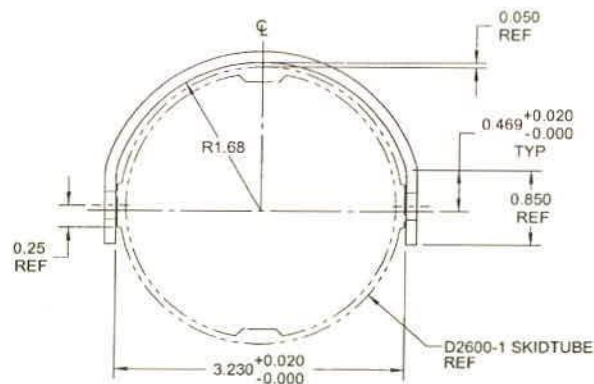


**RELEASED**  
04/18/16 NW

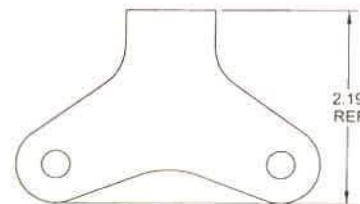
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	CP		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3414	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.		LUG ASSEMBLY	NTS
DATE	09.06.17	<small>COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



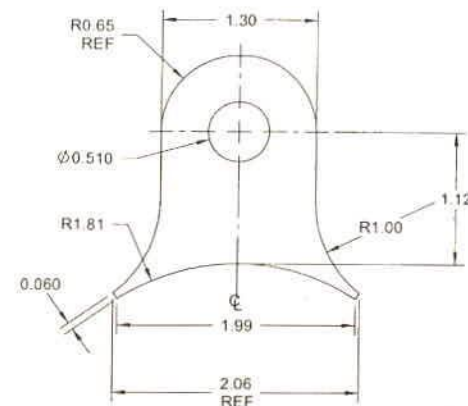
**D3414-1F LUG BRACKET FLAT PATTERN**



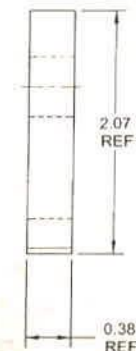
**D3414-1 LUG BRACKET**



SIDE VIEW FOR REF ONLY



**D3414-3 LUG**



**RELEASED**  
09/06/17

NOTES:

1) MATERIAL: -1: AISI 304/316 STAINLESS STEEL SHEET, 12 GAUGE (0.100 THICK)  
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524  
REF. DART SPEC. M304S12GA

-3: AISI 304/316 STAINLESS STEEL PLATE  
PER MIL-S-5059 (ANNEALED) 2B FINISH OR AMS 5513/5524  
REF. DART SPEC. M304S

2) FINISH: N/A

3) TOLERANCES: PER DART Q91 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: -1: 0.010 TO 0.020 MAX  
-3: 0.030 TO 0.060 MAX

6) IDENTIFICATION: N/A

7) WEIGHT: N/A

DESIGN	CP	DART AEROSPACE LTD	
DRAWN	CP	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3414	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		LUG ASSEMBLY	NTS
DATE	09.06.17	COPYRIGHT © 2005 BY DART AEROSPACE LTD	